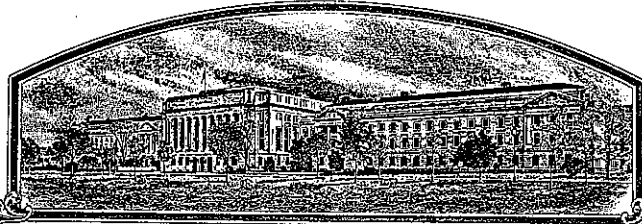


No.

9800361



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Hybri Tech Seed International, A Unit of Monsanto Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE SEED. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'IVAN'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirty-first day of January, in the year of our Lord two thousand.

Attest:

Ann Marie Threl

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Don Rickman

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the privacy Act of 1974 (5 U.S.C. 552a)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421) Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) Seed International NNA 04 Jan 2000 HybriTech U.S., a unit of Monsanto Company		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER N93-0136	3. VARIETY NAME IVAN
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 5912 N. Meridian Street Wichita, Kansas 67204-1699		5. TELEPHONE (include area code) 316-755-1250	FOR OFFICIAL USE ONLY PVPO NUMBER 9000061
		6. FAX (include area code) 316-755-0072	
7. GENUS AND SPECIES NAME <u>Triticum aestivum</u>	8. FAMILY NAME (Botanical) Gramineae		FILING AND EXAMINATION FEE: 2450⁰⁰
9. CROP KIND NAME (common name) Hard Red Spring Wheat			DATE 8-11-98
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (common name) Corporation			CERTIFICATION FEE 300
11. IF INCORPORATED, GIVE STATE OF INCORPORATION Delaware		12. DATE OF INCORPORATION 1933	DATE 8/28/99
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Dr. Gordon Cisar 806 N. Second Street PO Box 1320 Berthoud, Colorado 80513 AND Mr. Robert Bruns 806 N. Second Street PO Box 30 Berthoud, Colorado 80513 970-532-3721			14. TELEPHONE (include area code) 970-532-9840
			15. FAX (include area code) 970-532-2035
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (follow instructions on reverse)			
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety			
b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness			
c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety			
d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety			
e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership			
f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds, or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)			
g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to PVPO)			
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(u) of the Plant Variety Protection Act)			
<input checked="" type="checkbox"/> YES (if "yes", answer items 18 and 19 below) <input type="checkbox"/> NO (if "no", go to item 20)			
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?		19. IF 'YES' TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDERS SEED?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		<input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED	
20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?			
<input type="checkbox"/> YES (if "YES", give names of countries and dates) <input checked="" type="checkbox"/> NO			
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.			
The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.			
Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.			
SIGNATURE OF APPLICANT (Owner(s)) Gordon Cisar		SIGNATURE OF APPLICANT (Owner(s)) Rob Bruns	
NAME (Please print or type) Dr. Gordon Cisar		NAME (Please print or type) Rob Bruns	
CAPACITY OR TITLE Senior Project Leader, HRW Research	DATE 8/4/98	CAPACITY OR TITLE GM-Wheat Research	DATE 8/4/98

980361

Exhibit A.

Origin and Breeding History of Ivan

Ivan originated from the cross "MN74103/Marshall//Success/3/W87-069/4/Bergen" which was made in Berthoud, Colorado during the fall crossing session of 1988. MN74103 is an experimental line from the Univ. of Minnesota-ARS breeding program. Its pedigree is "MN69124/3/Lovrin#11//Era/Tobari 66". W87-069 is a hard red winter wheat experimental from the Agripro program. Its pedigree is "Brule/(Mesa Mother Line) W81-171". Single heads were selected from the F2 population of this cross at Berthoud during the 1990 season. Selections were based on height and leaf rust resistance. Single seed descent was used to advance these selections through the F3 and F4 generations in the Berthoud greenhouse during the fall and winter of 1990-91. F5 headrows of these selections were planted at Casselton, North Dakota in 1992 where they were further screened for height, straw strength, foliar diseases, leaf rust and stem rust. Selected F5 headrows were individually bulk harvested. F6 increase plots were grown at Berthoud and observation plots were grown at Casselton, ND. and Grand Forks, MN. in 1993. These lines were further screened on the previously mentioned traits as well as uniformity. The experimental designation of N93-0136 was assigned to one of these lines for yield evaluation, which began in 1993. N93-0136 was tested in AgriPro nurseries in the Red River Valley of North Dakota and Minnesota from 1993 to 1997. It has been tested in the Northern Uniform Regional Nursery in 1997.

In 1995, 80 headrows were grown in Berthoud, Colorado. Seventy-six headrows with uniform appearance were harvested and planted as a one acre initial Breeders Seed increase in 1996. In 1997, a five acre Breeders Seed increase was grown in Berthoud, Colorado that produced 21,500 pounds of seed.

Ivan has been uniform and stable since 1995. About 0.8% of the plants were rogued from the initial Breeder's Seed increase in 1996. Approximately 80% of the rogued variant plants were taller height wheat plants (5 to 15 cm), 5% were awnletted wheat plants and 5% were bronze chaffed wheat plants. Up to 1% variant plants may be encountered in subsequent generations.

Exhibit B.
Statement of Distinctness

Ivan is most similar to the hard red spring wheat 'Verde'. However, it can be easily distinguished by the following morphological characteristics:

- Ivan has a square shoulder on the glume (Berthoud, Colorado 1996 and 1997). Verde has an elevated shoulder on the glume, (PVPA Objective Description #9600115).
- Ivan has a shallow seed crease (Berthoud, Colorado 1996 and 1997). Verde has a mid-deep seed crease (PVPA Objective Description #9600115).
- Ivan has long brush hairs on the tip of the seed (Berthoud, Colorado 1996 and 1997). Verde has medium length brush hairs on the tip of the seed (Plant Variety Protection Objective Description #9600115).

200 WHE IS HIS 1997

0209-10 1997
1997

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Wheat)

OBJECTIVE DESCRIPTION OF VARIETY
WHEAT (*Triticum* Spp.)

NAME OF APPLICANT(S) HybriTech U.S., a unit of Monsanto Company	FOR OFFICIAL USE ONLY PVPO NUMBER 9800261 9800261
ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) 5912 N. Meridian Street Wichita, Kansas 67204-1699	NAME OR EXPERIMENTAL DESIGNATION IVAN

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in the first box when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized standard may be used to determine plant colors; designate system used.

Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

1 1=Common 2=Durum 3=Club 4=Other (specify) _____

2. VERNALIZATION:

2 1=Spring 2=Winter 3=Other (specify) _____

3. COLEOPTILE ANTHOCYANIN:

1 1=Absent 2=Present

4. JUVENILE PLANT GROWTH:

3 1=Prostrate 2=Semi-erect 3=Erect

5. PLANT COLOR (boot stage):

2 1 = Yellow-Green 2 = Green 3 = Blue-Green

6. FLAG LEAF (boot stage):

2 1 = Erect 2 = Recurved

2 1 = Not Twisted 2 = Twisted

7. EAR EMERGENCE:

0 0 Number of Days Earlier Than Butte 86 (URN Data) *

0 4 Number of Days Later Than Butte 86 (URN Data) *

8. ANTHOR COLOR:

1 1 = YELLOW 2 = PURPLE

9. PLANT HEIGHT (from soil to top of head, excluding awns):

0 0 cm Taller Than _____ *

1 0 cm Shorter Than Butte 86 *

* Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial

10. STEM:

A. ANTHOCYANIN

☒ 1 = Absent 2 = Present

B. WAXY BLOOM

☒ 2 1 = Absent 2 = Present

C. HAIRINESS (*last internode of rachis*)

☒ 2 1 = Absent 2 = Present

D. INTERNODE (*specify number*)

☒ 1 1 = Hollow 2 = Semi-solid 3 = Solid

E. PEDUNCLE

2 ☒ 1 1 = Absent 2 = Present

Note peduncle is ERect (straight)

per phone conversation
4/13/99 msh

☒ 1 ☒ 3 cm Length

11. HEAD (*at Maturity*):

A. DENSITY

☒ 2 1 = Lax 2 = Middense 3 = Dense

B. SHAPE

☒ 1 1 = Tapering 2 = Strap 3 = Clavate 4 = Other (*specify*)

C. CURVATURE

☒ 2 1 = Erect 2 = Inclined 3 = Recurved

D. AWNEDNESS

☒ 4 1 = Awnless 2 = Apically Awnletted 3 = Awnletted 4 = Awned

12. GLUMES (*at Maturity*):

A. COLOR

☒ 1 1 = White 2 = Tan 3 = Other (*specify*)

B. SHOULDER

☒ 4 1 = Wanting 2 = Oblique 3 = Rounded 4 = Square 5 = Elevated 6 = Apiculate

C. BEAK

☒ 3 1 = Obtuse 2 = Acute 3 = Acuminate

D. LENGTH

☒ 1 1 = Short (ca. 7mm) 2 = Medium (ca. 8mm) 3 = Long (ca. 9mm)

E. WIDTH

☒ 2 1 = Narrow (ca. 3mm) 2 = Medium (ca. 3.5mm) 3 = Wide (ca. 4mm)

13. SEED:

A. SHAPE

☒ 1 1 = Ovate 2 = Oval 3 = Elliptical

B. CHEEK

☒ 1 1 = Rounded 2 = Angular

C. BRUSH

☒ 3 1 = Short 2 = Medium 3 = Long

☒ 1 1 = Not Collared 2 = Collared

D. CREASE

☒ 1 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

☒ 1 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

9800361

13. SEED: (continued)

E. COLOR

☒ 3 1 = White 2 = Amber 3 = Red 4 = Other (specify) _____

F. TEXTURE

☒ 1 1=Hard 2=Soft

G. PHENOL REACTION (see instructions):

☒ 0 1 = Ivory 2 = Fawn 3 = Light Brown 4 = Dark Brown 5 = Black

14. DISEASE: (0=Not Tested; 1=Susceptible; 2=Resistant; 3=Intermediate; 4=Tolerant)

PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

<input checked="" type="checkbox"/> 3 Stem Rust (<i>Puccinia graminis</i> f. sp. <i>tritici</i>) Field races	<input checked="" type="checkbox"/> 3 Leaf Rust (<i>Puccinia recondita</i> f. sp. <i>tritici</i>) Field races
<input checked="" type="checkbox"/> 0 Stripe Rust (<i>Puccinia striiformis</i>)	<input checked="" type="checkbox"/> 0 Loose Smut (<i>Ustilago tritici</i>)
<input checked="" type="checkbox"/> 0 Tan Spot (<i>Pyrenophora tritici-repentis</i>)	<input checked="" type="checkbox"/> 0 Flag Smut (<i>Urocystis agropyri</i>)
<input checked="" type="checkbox"/> 0 Halo Spot (<i>Selenophoma donacis</i>)	<input checked="" type="checkbox"/> 0 Common Bunt (<i>Tilletia tritici</i> or <i>T. laevis</i>)
<input checked="" type="checkbox"/> 0 <i>Septoria nodorum</i> (Glume Blotch)	<input checked="" type="checkbox"/> 0 Dwarf Bunt (<i>Tilletia controversa</i>)
<input checked="" type="checkbox"/> 0 <i>Septoria avenae</i> (Speckled Leaf Disease)	<input checked="" type="checkbox"/> 0 Karnal Bunt (<i>Tilletia indica</i>)
<input checked="" type="checkbox"/> 0 <i>Septoria tritici</i> (Speckled Leaf Blotch)	<input checked="" type="checkbox"/> 0 Powdery Mildew (<i>Erysiphe graminis</i> f. sp. <i>tritici</i>)
<input checked="" type="checkbox"/> 0 Scab (<i>Fusarium</i> spp.)	<input checked="" type="checkbox"/> 0 Snow Molds
<input checked="" type="checkbox"/> 0 Black Point (Kernel Smudge)	<input checked="" type="checkbox"/> 0 Common Root Rot (<i>Fusarium</i> , <i>Cochliobolus</i> and <i>Bipolaris</i> spp.)
<input checked="" type="checkbox"/> 0 Barley Yellow Dwarf Virus (BYDV)	<input checked="" type="checkbox"/> 0 Rhizoctonia Root Rot (<i>Rhizoctonia solani</i>)
<input checked="" type="checkbox"/> 0 Soilborne Mosaic Virus (SBMV)	<input checked="" type="checkbox"/> 0 Black Chaff (<i>Xanthomonas campestris</i> pv. <i>translucens</i>)
<input checked="" type="checkbox"/> 0 Wheat Yellow (Spindle Streak) Mosaic Virus	<input checked="" type="checkbox"/> 0 Bacterial Leaf Blight (<i>Pseudomonas syringae</i> pv. <i>syringae</i>)
<input checked="" type="checkbox"/> 0 Wheat Streak Mosaic Virus (WSMV)	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Other (specify) _____	<input type="checkbox"/> Other (specify) _____

Exhibit D.
Additional Description of Ivan

Ivan is a hard red spring wheat bred and developed by Agripro Seeds, Inc. Ivan is an intermediate height semidwarf with medium-late maturity, high test weight and very strong straw strength. Ivan offers moderate resistance to the prevalent races of leaf rust and stem rust. Ivan has low protein levels and satisfactory milling and baking characteristics.

Juvenile growth habit is erect. Seedling anthocyanin is present. Plant color at boot stage is green. Auricle anthocyanin and auricle hairs are present. Flag leaf at boot stage is recurved and twisted. Waxy bloom is present on the head, stem and flag leaf sheath. Anther color is yellow. Head shape is tapering and awned. Glumes are glabrous, medium in width and short in length with square shoulders and acuminate beaks. Seed shape is ovate. Brush hairs are long in length and medium in area. Seed crease depth is shallow and width is narrow. Seed cheeks are rounded.

Ivan is well adapted to the spring wheat region that includes the states of Minnesota, North Dakota, South Dakota and Montana.

APR 15 1983

0208 11 11

ACRIPRO WHEAT
HARD RED SPRING WHEAT
IVAN

0800361

YEAR: 1997

FLOUR/WHEAT QUALITY

BAKING QUALITY

YEAR LOC	TEST WT	FLOUR/WHEAT QUALITY										BAKING QUALITY									
		WHT PROT	FIR PROT	FIR	HRD	FIR YLD	ASH	MIXOGRAM		TOL		ABS		MIX TIME		LOAF VOL		CRUMB		OVER	
	lb/Bu	14%mb	14%mb	R	%	%	R	min	N.U.	mm	R	%	R	min	R	cc	R	GR	TX	COL	ALL
IVAN																					
97 MW	00.0	11.4	10.5	6	65	74.9	3	512	4.8	1157	2	61.0	7	3.00	3	1020	4	4	4	3	49
96 PR	00.0	14.9	13.7	4	82	72.4	4	434	5.0	1027	2	66.0	4	2.50	3	875	6	5	3	4	45
96 BP	00.0	13.7	12.5	6	61	72.2	2	394	5.0	1263	2	64.0	6	3.00	1	955	4	4	3	3	43
95 PR	00.0	13.4	12.1	6	68	71.8	4	426	5.3	1159	3	62.0	5	3.75	1	855	4	4	3	3	46
93 GF	55.4	13.3	11.8	7	52	74.0	2	000	5.0	1192	4	64.0	6	3.00	3	1110	4	3	2	2	47
AVERAGE	55.4	13.3	12.1	5.8	66	73.1	3.0	.442	5.0	1160	2.6	63.4	5.6	3.05	2.2	963	4.4	4.0	3.0	3.0	46
GRANDIN																					
97 MW	00.0	12.7	11.9	4	77	73.3	4	518	5.0	1145	2	63.0	5	3.00	3	1235	2	3	1	2	34
96 PR	00.0	15.4	14.4	3	90	74.5	2	398	5.8	800	3	69.0	2	3.00	1	950	4	5	3	3	37
96 BP	00.0	15.6	14.5	2	78	73.3	1	388	5.5	1042	3	67.0	3	2.75	1	865	5	4	3	3	34
95 PR	00.0	15.3	14.3	3	83	73.2	2	442	5.8	1118	3	67.0	2	3.75	1	940	4	5	2	3	35
93 GF	54.1	15.2	13.4	4	66	72.8	3	000	5.0	1264	4	67.0	4	4.00	1	1240	2	4	3	3	40
AVERAGE	54.1	14.8	13.7	3.2	79	73.4	2.4	.437	5.4	1074	3.0	66.6	3.2	3.30	1.4	1046	3.4	4.2	2.4	2.8	36
NORDIC																					
97 MW	00.0	11.3	10.2	7	65	78.6	1	536	5.3	769	6	62.0	6	2.75	3	1050	4	5	2	4	54
96 PR	00.0	12.8	11.7	7	83	74.7	2	424	5.5	972	3	65.0	5	3.00	1	905	5	5	3	4	49
96 BP	00.0	13.0	12.0	6	59	72.9	2	440	5.5	1028	3	65.0	5	3.25	1	880	5	4	3	3	45
95 PR	00.0	12.7	12.0	6	56	72.3	3	456	5.5	1108	3	62.0	5	3.00	3	815	5	5	4	3	52
93 GF	50.9	13.1	11.7	7	55	72.3	3	502	5.0	1279	4	64.0	6	4.00	1	970	7	5	4	3	57
AVERAGE	50.9	12.6	11.5	6.6	64	74.2	2.2	.472	5.4	1031	3.8	63.6	5.4	3.20	1.8	924	5.2	4.8	3.2	3.4	51

RATINGS: 1-2=EXCELLENT 3=VERY GOOD 4=GOOD 5=ACCEPTABLE 6-7=QUESTIONABLE 8-9=UNACCEPTABLE

0000061 0000061

1995-97 OVER YEAR SUMMARY RANKED BY YIELD - AGRIPRO DATA

VARIETY	YIELD - BU/A			TEST		PROT.		WORTH		HEAD		HT		DIS		LOD	
	95			96		97	AVG	LBS/BU	%	1-9	1-9	1-9	1-9	1-9	1-9	1-9	1-9
	95	96	97	96	97												
IVAN	55.1	83.3	45.9	56.0	59.3	12.8	4.0	6.3	4.7	3.9	3.1	3.9	3.1	3.9	3.1	3.1	3.1
LARS	48.3	80.8	42.7	51.7	57.5	13.2	3.1	5.5	4.0	2.8	1.7	2.8	1.7	2.8	1.7	1.7	1.7
NORDIC	47.1	77.7	40.7	49.8	58.6	12.3	5.1	6.3	6.0	4.6	4.7	4.6	4.7	4.6	4.7	4.7	4.7
OXEN*	47.4	74.5	41.6	49.7	57.6	14.4	4.9	2.9	5.0	6.2	2.9	5.0	2.9	6.2	2.9	2.9	2.9
RUSS	47.9	75.2	39.8	49.2	58.8	13.9	4.9	3.3	6.3	6.3	3.9	6.3	3.9	6.3	3.9	3.9	3.9
NORLANDER	46.0	75.7	39.6	48.5	57.7	14.0	4.6	2.8	5.7	5.9	3.0	5.7	3.0	5.9	3.0	3.0	3.0
HAGAR	43.7	78.2	40.0	48.3	58.4	14.3	4.8	6.1	5.3	3.3	2.2	5.3	2.2	3.3	2.2	2.2	2.2
GRANDIN	43.8	73.4	39.6	47.3	60.1	14.2	5.2	3.8	6.7	5.6	4.2	6.7	4.2	5.6	4.2	4.2	4.2
HAMER	44.1	73.4	39.2	47.2	58.1	13.8	4.2	4.4	5.3	4.0	2.7	5.3	2.7	4.0	2.7	2.7	2.7
GUNNER	41.9	71.1	41.9	47.2	61.2	15.2	3.9	6.3	7.7	3.9	3.5	7.7	3.5	3.9	3.5	3.5	3.5
TRENTON	45.0	70.9	38.8	46.9	59.5	14.8	6.3	4.0	8.0	5.3	2.9	8.0	2.9	5.3	2.9	2.9	2.9
VERDE	42.8	72.6	39.2	46.6	58.7	13.3	4.5	6.2	5.0	4.0	3.5	5.0	3.5	4.0	3.5	3.5	3.5
AC BARRIE*	45.4	76.7	35.4	46.5	59.7	15.3	5.7	6.5	8.0	5.3	6.0	8.0	6.0	5.3	6.0	6.0	6.0
2375	42.7	67.8	38.7	45.4	59.6	14.1	4.8	3.9	6.3	5.4	6.9	6.3	6.9	5.4	6.9	6.9	6.9
BUTTE 86	43.6	68.0	37.8	45.4	58.6	14.4	5.8	2.5	7.0	5.9	3.5	7.0	3.5	5.9	3.5	3.5	3.5
NORA	43.0	67.8	34.7	43.7	58.6	15.1	4.6	4.6	4.0	5.6	4.2	4.0	4.2	5.6	4.2	4.2	4.2
AC DOMAIN*	39.5	65.7	33.9	41.7	59.2	15.7	5.4	5.2	8.0	6.3	3.7	8.0	3.7	6.3	3.7	3.7	3.7
BACUP*	29.6	48.4	32.2	34.2	61.6	16.7	6.5	2.1	7.0	6.6	7.9	7.0	7.9	6.6	7.9	7.9	7.9
MEAN	44.3	72.3	39.0	47.0	59.0	14.3	4.9	4.6	6.1	5.0	3.9	6.1	3.9	5.0	3.9	3.9	3.9
NO. OF LOCS.	4	2	5	11	6	6	8	6	2	6	2	2	2	6	2	2	2

*Not tested in 1995, yield data adjusted for averages

¹ Ratings given to agronomics and disease on a 1-9 basis. Heading (1=earliest); Height (1=shortest); Foliar disease (1=resistance). Lodging (1-strongest straw).

9200361

HARD RED SPRING WHEAT SUMMARY - 1997 Uniform Regional Data

IVAN VS. STOA

STATE	YIELD - BU/A		T.WT. - LBS/BU		HEADING - DAYS		HEIGHT - CM		LODGING - 1-9	
	LOCS	IVAN	STOA	LOCS	IVAN	STOA	LOCS	IVAN	LOCS	IVAN
MINNESOTA	2	51.0	45.4	2	59.0	58.8	2	80.5	1	6
NORTH DAKOTA	6	41.0	36.1	6	57.9	56.7	6	61.7	3	0.9
SOUTH DAKOTA	2	51.1	47.5	2	57.9	56.6	2	68.5	2	1.2
MONTANA	2	73.3	69.4	2	59.3	58.8	2	72.0	1	0
MEAN	12	49.3	45.1	12	58.3	57.4	12	67.7	4	2.2

IVAN VS. BUTTE 86

STATE	YIELD - BU/A		T.WT. - LBS/BU		HEADING - DAYS		HEIGHT - CM		LODGING - 1-9	
	LOCS	IVAN	BUTTE 86	LOCS	IVAN	BUTTE 86	LOCS	IVAN	LOCS	BUTTE 86
MINNESOTA	2	51.0	44.3	2	59.0	58.3	2	80.5	1	6
NORTH DAKOTA	6	41.0	34.6	6	57.9	57.9	6	61.7	3	0.9
SOUTH DAKOTA	2	51.1	45.5	2	57.9	58.5	2	68.5	2	0.9
MONTANA	2	73.3	61.7	2	59.3	59.0	2	72.0	1	0
MEAN	12	49.3	42.6	12	58.3	58.3	12	67.7	4	2.2

IVAN VS. HJ98

STATE	YIELD - BU/A		T.WT. - LBS/BU		HEADING - DAYS		HEIGHT - CM		LODGING - 1-9	
	LOCS	IVAN	HJ98	LOCS	IVAN	HJ98	LOCS	IVAN	LOCS	HJ98
MINNESOTA	2	51.0	50.4	2	59.0	57.8	2	80.5	1	6
NORTH DAKOTA	6	41.0	42.0	6	57.9	56.9	6	61.7	3	0.9
SOUTH DAKOTA	2	51.1	47.6	2	57.9	58.0	2	68.5	2	1.2
MONTANA	2	73.3	75.8	2	59.3	58.3	2	72.0	1	0
MEAN	12	49.3	50.0	12	58.3	57.5	12	67.7	4	2.2

LEAF AND STEM RUST DATA - 1997
UNIFORM REGIONAL DATA

VARIETY	LEAF RUST			STEM RUST		
	ST. PAUL MN	PROSPER ND		ST. PAUL MN	PROSPER ND	
IVAN	TMR	10R		0	0	
STOA	10MR	5R		0	0	
BUTTE 86	30MR-MS	10MR		5MR	0	
HJ98	30MR-MS	10MR		TMR	0	

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)

HybriTech U.S., a unit of Monsanto Company

2. TEMPORARY DESIGNATION
OR EXPERIMENTAL NUMBER

N91-0136

3. VARIETY NAME

IVAN

4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)

5912 N. Meridan
Wichita, Kansas 67204-1699

5. TELEPHONE (include area code)

316-755-1250

6. FAX (include area code)

316-755-0072

7. PVPO NUMBER

980096-2500361

8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain.

☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company?

If no, give name of country

☒ YES ☐ NO

10. Is the applicant the original breeder? If no, please answer the following:

☐ YES ☐ NO

a. If original rights to variety were owned by individual(s):

Is (are) the original breeder(s) a U.S. national(s)? If no, give name of country

☐ YES ☐ NO

b. If original rights to variety were owned by a company:

Is the original breeder(s) U.S. based company? If no, give name of country

11. Additional explanation on ownership (if needed, use reverse for extra space):

Please see following page.

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter.

Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

The U.S. Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791.

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

Exhibit E.
Statement of the Basis of Applicant's Ownership

Joe Smith, an employee of Agripro Seeds, Inc, developed the variety for which Plant Variety Protection is hereby sought. By agreement between employees and Agripro Seeds, Inc., all rights to any invention, discovery, or development made by the employee while employed by Agripro Seeds, Inc., were assigned to Agripro Seeds, Inc., with no rights of any kind pertaining to 'Ivan' being retained by the employees.

By contractual agreement the variety 'Ivan' was purchased from Agripro Seeds, Inc. in June of 1996 and is currently owned by HybriTech U.S., a unit of Monsanto Company.